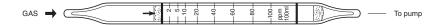
# **HYDROGEN CYANIDE**



## 1. PERFORMANCE

1) Measuring range : 2-100 ppm 0.5-25 ppm Number of pump strokes 1(100ml) 4 (400m l) 2) Sampling time : 1 minute/1 pump stroke

3) Detectable limit  $0.2 \text{ ppm} (400 \text{m} \ell)$ 

2 years (Necessary to store in refrigerated conditions;  $0 \sim 10 \, ^{\circ}\text{C}$ ) 4) Shelf life

5) Operating temperature

6) Reading Direct reading from the scale calibrated by 1 pump stroke

: Yellow → Red 7) Colour change

# 2. RELATIVE STANDARD DEVIATION

RSD-low: 10% RSD-mid.: 5% RSD-high: 5%

#### 3. CHEMICAL REACTION

By reacting with Mercury chloride, Hydrogen chloride is liberated and PH indicator is discoloured. HCN + HgCI<sub>2</sub>→HCI

## 4. CALIBRATION OF THE TUBE

ABSORPTIOMETRIC METHOD

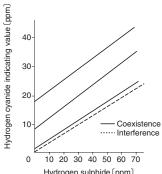
## 5. INTERFERENCE AND CROSS SENSITIVITY

Substance		Interference	ppm	Coexistence
Sulphur dioxide		Similar stain is produced.	1	Higher readings are given.
Phosphine		"	1	"
Hydrogen sulphide	FIG.1	"	3	"
Ammonia		The accuracy of readings is not affected.	5	Lower readings are given.

#### (NOTE)

In case of 4 pump strokes, following formula is available for the actual concentration.

Actual concentration = Reading value  $\times \frac{1}{4}$ 



Hydrogen sulphide (ppm) FIG.1 Influence of Hydrogen sulphide

#### **HUMIDITY CORRECTION TABLE**

Tube Readings	Corrected Concentration (ppm)								
(ppm)	10%R.H.	30%R.H.	50%R.H.	70%R.H.	90%R.H.				
100	91.0	95.0	100.0	105.0	111.0				
80	73.0	76.0	80.0	84.0	88.5				
60	54.5	57.0	60.0	63.0	66.0				
40	36.0	38.0	40.0	42.0	44.5				
20	18.0	19.0	20.0	21.0	22.5				
10	8.4	9.2	10.0	10.8	11.6				
5	4.2	4.6	5.0	5.4	5.8				